



Olivine, Inc. Comments on the Lead Commissioner Workshop on Increasing Demand Response Capabilities in California

Olivine appreciates the opportunity to provide comments on the IEPR Lead Commissioner Workshop to Increase Demand Response Capability in California. Olivine is a registered Demand Response Provider (DRP) as well as a Scheduling Coordinator (SC) at the CASIO and has experience with the current state of DR direct participation in the CAISO wholesale markets both through its own program as well as working with IOUs in wholesale pilots.

The workshop illuminated a number of items that are essential elements in increasing DR capability in California but did not completely identify some critical issues that will need to be addressed to assure robust DR participation in wholesale energy markets. The various presentations demonstrated that the technology is available and currently in use in other ISOs and RTOs to allow both direct control of load and DR management by aggregators and curtailment service providers. It is also clear that there is an established base of automation and DR capability in California through the load management and central control by big box retailers and large institutions with comprehensive energy management systems and even micro grid deployment.

Olivine's comments will focus on the additional items that need to be addressed. The critical areas are:

- Expansion of aggregation friendly resource design and third party representation
- A workable behind the meter construct
- Measurement methodologies for real-time energy and ancillary services that relax the current telemetry requirements
- A capacity payment mechanism in the RA/LTPP proceeding that provides revenue equality for DR resources

California has a reasonable start for wholesale market participation in the Proxy Demand Resource (PDR) and Participating Load models currently in production at the CAISO that allow direct participation by DR. The PDR model currently only allows participation in energy and non-spinning reserve products and has some limitations on aggregation and third party participations but could be expanded to allow participation in spinning reserves and frequency regulation and even to allow bi-directional resources.

Aggregation

PDR allows aggregation of multiple locations into a single resource within reasonable limitations as well as allowing a third party to bid in the dispatchable portion of the demand independent of the Load Serving Entity. Use of the PDR mechanism is currently stalled pending the finalization of Rule 24 and a decision from the DC Circuit court on the CAISO appeal of a FERC decision. Even with resolution of these two issues, the rules for aggregation need further refinement to allow co-mingling of bundled and direct access customers as well as the ability to include or exclude locations for temporal issues.

Behind the Meter

PDR in one context actually provides a behind the meter opportunity for direct wholesale participation but fall short of addressing issues that meet both wholesale and retail settlement objectives and

requirements. Further, a workable behind the meter construct needs to apply to other emerging resource types such as the CAISO Non Generator Resource (NGR) to participate in the wholesale market as well. The central issue for behind the meter participation is that a resource that isn't directly connected at the transmission level while directly metered at the CAISO also impacts a retail meter. One solution is to have the wholesale measured performance subtracted from the retail meter as was originally contemplated by the CAISO Default Load Adjustment (DLA) for PDR but rejected by FERC. Absent a mechanism such as the DLA which prevented the wholesale market for paying twice for the same energy, lack of a subtractive arrangement, the participant might end up paying twice for energy which creates a disincentive for direct participation. The challenge for developing rules and tariff to address the issue is that both the CPUC and the CAISO must coordinate their efforts.

Measurement

All metering and measurement protocols as the CAISO are largely predicated on methods designed for large central station generators. The current initiative at the CAISO to expand metering and telemetry options is a reasonable start to develop a set of measurement protocols for DR but must recognize that it is reasonable to allow a significant departure from current metering requirements for generators. Statistical methods have been proven to be adequate in other RTOs and ISOs to measure and settle DR and baselines are in use in PDR as well. The bigger obstacle is that even with the use of a statistical baseline for settlement purposes, the CAISO requires real-time telemetry for participation in the Real-time energy market even though it is not used for financial settlement. Dropping the telemetry requirement for participation in the Real-time energy market would remove a significant barrier to participation.

Capacity Payments

Lack of a workable mechanism for DR in the Resource Adequacy and Long Term Procurement Process continues to impede innovation and expansion of DR in the wholesale market. While most parties acknowledge the importance of DR and its position in the loading order, the processes and proceedings at the CAISO and CPUC continue to defer addressing the issue as they struggle with RA and LTPP issues in general. Waiting for general RA and LTPP issues to be resolved before taking on DR likely means that it will be years before DR is addressed. DR must be included and its issues resolved in the same timeframe as the broader issues to insure that a clear path to increased DR can be developed. Once DR has a clear position in the RA and LTPP context, the value of its capacity will become clear increasing the likelihood that a sustainable revenue path outside of IOU DR programs can be achieved.